

CLAIMS

- 1 110 A process for converting any optical or electro-optical on-off switch into an electro-optical switching process by pairing two of them with a flip-flop control system, and
 - a) a switching process for switching a lambda of a fiber-optic light beam, and
 - b) by using 2 or more switches and a control circuit, create a 2×2 , a 4×4 $2^n \times 2^n$ cross switching process, where every input can be switched exclusively to any other output, and
 - c) The switching process configuration could be held for a defined time period (1 microsecond, 1 second, a minute, a day or weeks), or
 - d) The optical or electro-optical switching process could be controlled by a burst mode control system, or
 - e) The switching process could be controlled by a Time Division Multiple Access mode, and
 - f) other uses for this optical switching process, and
 - g) The optical switching process could be a component of a small scale or a large scale integrated optical control circuits, having a least one optical switching process of claim 1), however built.
2. 111 A switching process using one or more electro-optic modulators for an optical beam switch, and
 - a) switching process for switching a lambda of a fiber-optic light beam, and
 - b) by using 2 or more optic modulators and a control circuit, create a 2×2 , a 4×4 $2^n \times 2^n$ cross switching process where every input can be switched exclusively to any other output, and
 - c) the switching process configuration could be held for a defined time period (1 microsecond, 1 second, a minute, a day or weeks), or
 - d) the switching process could be controlled by a burst mode control system, or
 - e) could be controlled by a Time Division Multiple Access mode.